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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/692,432

Applicant(s)

MCCOLLUM ET AL.

Examiner

Thuy Dao

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-37 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to the amendment filed on July 2, 2008. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. However, upon further consideration, a new ground of rejection is made as set forth in details below.

2. Claims 1-37 have been examined.

Response to Arguments

3. As addressed above, Applicants' arguments have been considered but are moot in view of the new ground of rejection.

Claim Rejections – 35 USC §101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-21, 31-32, and 37 are rejected because the claimed invention is directed to non-statutory subject matter:

Independent claim 1 directs to "A machine-implemented system", which may comprise only software components such as "an application or service" and "an attribution component" (FIG. 1, elements 104 and 114).

Independent claim 31 directs to "A system", which may comprise only software components such as "means for attributing selected parts of code", "means for exposing the health information", "means for cataloging the instrumentation definitions", and "means for controlling the application or service" (FIG. 7A-B and related text).

Claims 1-21, 31-32, and 37 amount to Functional Descriptive Material: "Data Structures" representing descriptive material per se or "Computer Programs" representing computer listings per se.

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions. See MPEP 2106.

Dependent claims 2-21, 32, and 37 do not cure the deficiencies as noted above, thus, also amount to Functional Descriptive Material: "Data Structures" representing descriptive material per se or "Computer Programs" representing computer listings per se.

Under the principles of compact prosecution, claims 1-21, 31-32, and 37 have been examined as the Examiner anticipates the claims will be amended to obviate

these 35 USC § 101 issues. For example, - - A machine-implemented system, embodied in a computer-readable storage medium, that facilitates management... - - as disclosed in the specification, page 56, lines 9-10.

6. Claims 33-36 are directed to a computer readable medium, which may include communication medium (specification, page 49, lines 16-18 and page 57, lines 4-6).

A computer readable medium product is a tangible physical article or object, some form of matter, which a signal is not. That the other two product classes, machine and composition of matter, require physical matter is evidence that a manufacture was also intended to require physical matter. A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of Sec. 101 – see MPEP 2106.

Under the principles of compact prosecution, claims 33-36 have been examined as the Examiner anticipates the claims will be amended to obviate these 35 USC § 101 issues. For example, - -A computer-readable storage medium ...- - as disclosed in the specification, page 56, lines 9-10.

Claim Rejections – 35 USC §102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-13, 15-30, and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Publication No. 2004/0034853 A1 to Gibbons et al. (art made of record, hereafter "Gibbons").

Claim 1:

Gibbons discloses *a machine-implemented system, embodied in a computer-readable medium, that facilitates management of an application or service, comprising:*

an application or service for installation on the system (e.g., FIG. 5, element 505, [0117]-[0119]); and

an attribution component that facilitates attributing selected parts of code of the application or service (e.g., [0095]-[0096])

with management information (e.g., [0099]-[0101]);

where the system uses the management information to manage the installed application or service (e.g., [0100]-[0102], [0094], FIG. 8, blocks 815-820-825-830, [0129]-[0131]).

Claim 2:

Gibbons discloses *the system of claim 1, a software tool is applied to the attributed code of the application or service to expose the management information (e.g., FIG. 4, element 410, [0115]-[0116]).*

Claim 3:

Gibbons discloses *the system of claim 1, the management information is exposed and used to generate a manifest (e.g., FIG. 5, [0117]-[0122]).*

Claim 4:

Gibbons discloses *the system of claim 1, the attributed code of the application or service indicates at least one subset of types within one or more components of the application or service that should be exposed and how the subset of types should be identified (e.g., [0120]-[0122]).*

Claim 5:

Gibbons discloses *the system of claim 1, the management information is exposed from at least one of an in-process provider and a decoupled provider (e.g., [0009]-[0115]).*

Claim 6:

Gibbons discloses *the system of claim 1, the management information is exposed from a decoupled provider, which attributed code of the decoupled provider includes at least one of a register call at startup and an unregister call at shutdown (e.g., [0021]-[0028]).*

Claim 7:

Gibbons discloses *the system of claim 1, a catalog is created of all available instrumentation data of the system, wherein the catalog is browsed and used to discover a particular instrumentation point (e.g., [0095]-[0098]).*

Claim 8:

Gibbons discloses *the system of claim 1,*
at runtime, management information is retrieved by identifying the associated management information within a catalog of all management information of the system (e.g., [0097]-[0102]), and
following the associated management information to the corresponding application or service (e.g., [0099]-[0104]).

Claim 9:

Gibbons discloses *the system of claim 8, for an in-process provider at runtime, the component associated with the management information, is loaded and invoked (e.g., [0105]-[0110]).*

Claim 10:

Gibbons discloses *the system of claim 8,*
for a decoupled provider at runtime, the management information is
used with information provided by a register call to locate a corresponding running
process, to connect to the running process (e.g., [0088]-[0093]), and
to locate a subcomponent within the running process that is associated
with the management information (e.g., [0096]-[0100]).

Claim 11:

Gibbons discloses *the system of claim 1, the management information*
includes a probe attribute that is used to indicate that a member of a type is a probe
(e.g., [0098]-[0101]).

Claim 12:

Gibbons discloses *the system of claim 11, the type is decorated with a folder*
attribute (e.g., [0048]-[0052]).

Claim 13:

Gibbons discloses *the system of claim 1, the management information*
includes health information that is exposed from an in-process provider (e.g., [0055]-
[0063]).

Claim 15:

Gibbons discloses *the system of claim 1, the management information is*
identified within the attributed application or service using a uniform resource
identifier (e.g., [0064]-[0068]).

Claim 16:

Gibbons discloses *the system of claim 1, the management information includes execution information that indicates when the management information should be executed* (e.g., [0084]-[0091]).

Claim 17:

Gibbons discloses *the system of claim 1, the management information is exposed from a data source that includes at least one of hardware, software application, and an operating system* (e.g., [0088]-[0093]).

Claim 18:

Gibbons discloses *the system of claim 1, the management information includes class definitions that are exposed to a management component* (e.g., [0097]-[0101]).

Claim 19:

Gibbons discloses *the system of claim 1, the class definitions are described in a managed object format* (e.g., [0104]-[0110]).

Claim 20:

Gibbons discloses *a computer system according to claim 1* (e.g., FIG. 1, [0050]-[0059]).

Claim 21:

Gibbons discloses *a computer-readable storage medium having computer-executable instructions that embodies the system of claim 1* (e.g., FIG. 1, [0050]-[0059]).

Claim 22:

Gibbons discloses *a method of managing an application or service, comprising:*

receiving the application or service for installation on a system (e.g., FIG. 5, element 505, [0117]-[0119]);

attributing selected parts of code of the application or service with management information (e.g., [0095]-[0096]);

exposing the management information to a management system (e.g., [0099]-[0102], [0129]-[0131]); and

controlling the application or service based upon the management information that is exposed when the application or service is installed on the system (e.g., [0100]-[0102], [0094], FIG. 8, blocks 815-820-825-830, [0129]-[0131]).

Claim 23:

Gibbons discloses *the method of claim 22, further comprising generating a manifest of the exposed management information (e.g., FIG. 5, [0117]-[0119]).*

Claim 24:

Gibbons discloses *the method of claim 22, the management information is exposed from one or more internal processes of a provider (e.g., [0097]-[0102]).*

Claim 25:

Gibbons discloses *the method of claim 22, further comprising generating a catalog of all manifests of all available instrumentation data of the system, wherein the catalog is browsed and used to discover a particular instrumentation point (e.g., [0095]-[0098]).*

Claim 26:

Gibbons discloses *the method of claim 22, the service is a native service whose code is wrapped with a managed code to facilitate attribution thereof (e.g., [0105]-[0110]).*

Claim 22:

Gibbons discloses *the method of claim 22, the attributed code includes at least one of folder and probe attributes (e.g., [0055]-[0063]).*

Claim 28:

Gibbons discloses *the method of claim 22, further comprising authoring the application or service with management information in preparation for a runtime (e.g., [0088]-[0093]).*

Claim 29:

Gibbons discloses *the method of claim 22, further comprising generating an instrumentation manifest for the application or service based upon the management information (e.g., [0098]-[0101]).*

Claim 30:

Gibbons discloses *the method of claim 29, the instrumentation manifest is stored with a collection of instrumentation manifests that are accessible to a consumer of the management information (e.g., [0048]-[0052]).*

Claim 33:

Gibbons discloses *a computer-readable storage medium having computer-executable instructions for performing a method for managing an application or service, the method comprising:*

receiving the application or service for installation on a system (e.g., FIG. 5, element 505, [0117]-[0119]);

attributing selected parts of code of the application or service with management information (e.g., [0095]-[0096]);

exposing the management information to a management system (e.g., [0099]-[0101]); and

controlling the application or service based upon the management information that is exposed when the application or service is installed on the system (e.g., [0100]-[0102], [0094], FIG. 8, blocks 815-820-825-830, [0129]-[0131]).

Claim 34:

Gibbons discloses a computer-readable storage medium having computer-executable instructions that facilitates a system for managing an application or service, the system comprising:

an application or service for installation on the system (e.g., FIG. 5, element 505, [0117]-[0119]); and

an attribution component that facilitates attributing selected parts of code of the application or service with management information (e.g., [0095]-[0096], [0099]-[0101]);

wherein the system uses the management information to manage the installed application or service (e.g., [0100]-[0102], [0094], FIG. 8, blocks 815-820-825-830, [0129]-[0131]).

Claim 35:

Gibbons discloses the computer-readable medium of claim 34, the management information includes a probe attribute that is used to indicate that a member of a type is a probe, which type is decorated with a folder attribute (e.g., [0095]-[0098], [0105]-[0110]).

Claim 36:

Gibbons discloses the computer-readable medium of claim 34,
at runtime, a component of an in-process provider associated with the management information is loaded and invoked (e.g., [0084]-[0091]), and
the management information for a decoupled provider is used with information provided by a register call to locate a corresponding running process, to connect to the running process (e.g., [0088]-[0093]), and

to locate a subcomponent within the running process that is associated with the management information (e.g., [0097]-[0101]).

Claim Rejections – 35 USC §103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 14, 31-32, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbons in view of US Patent No. 7,287,247 to Gschwind et al. (art made of record, hereafter "Gschwind").

Claim 14:

Gibbons does not explicitly disclose *the system of claim 1, the management information includes health information that indicates health of the application or service.*

However, in an analogous art, Gschwind further discloses *the management information includes health information that indicates health of the application or service* (e.g., col.7: 48-54; col.8: 41-48; col.9: 14-29; col.9: 56 – col.10: 15).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gschwind's teaching into Gibbons' teaching. One would have been motivated to do so to measure/profile a distributed/deployed object as suggested by Gschwind (e.g., col.2: 42 – col.3: 2).

Claim 31:

Gibbons discloses *a system, embodied in a computer-readable storage medium, for managing an application or service, comprising:*

means for attributing selected parts of code of the application or service with tag/instrumentation information (e.g., FIG. 5, element 505, [0117]-[0119]; [0095]-[0098], Tables 2, 4, and 5);

means for exposing the tag/instrumentation information in the form of instrumentation definitions (e.g., [0095]-[0096], [0099]-[0101]);

means for cataloging the instrumentation definitions in a collection of instrumentation definitions (e.g., [0095]-[0096]); and

means for controlling the application or service based upon the exposed instrumentation definitions when the application or service is installed on the system (e.g., [0100]-[0102], [0094], FIG. 8, blocks 815-820-825-830, [0129]-[0131]).

Gibbons does not explicitly disclose *means for attributing selected parts of code of the application or service with health information; means for exposing the health information in the form of instrumentation definitions.*

However, in an analogous art, Gschwind further discloses:

an application or service (e.g., FIG. 1, element 102, col.3: 37 – col.4: 24);

means for attributing selected parts of code of the application or service with health information (e.g., FIG. 4, col.7: 55 – col.8: 49);

means for exposing the health information in the form of instrumentation definitions (e.g., col.7: 48-54; col.8: 41-48; col.9: 14-29; col.9: 56 – col.10: 15).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gschwind's teaching into Gibbons' teaching. One would have been motivated to do so to measure/profile a distributed/deployed object as suggested by Gschwind (e.g., col.2: 42 – col.3: 2; col.7: 55 – col.8: 49).

Claim 32:

Gibbons discloses *the system of claim 31, further comprising means for identifying the health information with a unique identifier* (e.g., col.7: 48 – col.8: 48; col.3: 37 – col.4: 24).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gschwind's teaching into Gibbons' teaching. One would have been motivated to do so as set forth above.

Claim 37:

Gibbons discloses *the system of claim 1, wherein the attributed parts of code are considered probes for use in determining health of the application* (e.g., col.9: 14 – col.10: 15).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Gschwind's teaching into Gibbons' teaching. One would have been motivated to do so as set forth above.

Conclusion

11. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192